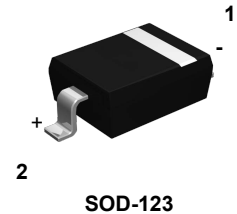


Features

- Fast switching speed
- Low forward voltage
- Low Capacitance
- Guard ring construction for transient protection



Mechanical Data

- Case: SOD-123
- Terminals: Solderable per MIL-STD-202, Method 208



Schematic Diagram

Maximum Ratings ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	70	V
Working Peak Reverse Voltage	V_{RWM}	70	V
DC Reverse Voltage	V_R	70	V
RMS Reverse Voltage	$V_{R(RMS)}$	49	V
Forward Continuous Current	I_F	15	mA
Power Dissipation	P_d	400	mW
Thermal Resistance Junction to Ambient ¹	$R_{\theta JA}$	250	$^\circ\text{C/W}$
Operating Junction Temperature Range	T_J	125	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150	$^\circ\text{C}$

Note1 : Part mounted on FR-4 board with recommended pad layout

Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Test Condition	Min	MAX	UNIT
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R=10\mu\text{A}$	70	-	V
Forward voltage	V_F	$I_F=1\text{mA}$	-	0.41	V
		$I_F=15\text{mA}$		1.00	
Reverse Voltage Leakage Current	I_R	$V_R=50\text{V}$	-	200	nA
Total Capacitance	C_T	$V_R=0\text{V}$, $f=1.0\text{MHz}$	-	2	pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=10\text{mA}$, $I_{rr}=0.1*I_R$, $R_L=100\Omega$	-	1	ns

Typical Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

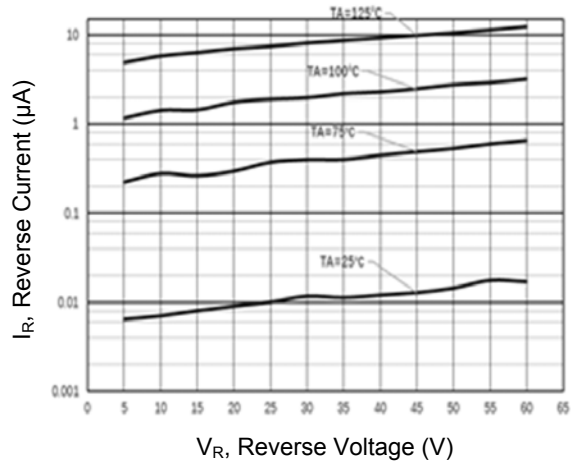


Figure 1. Typical Reverse Characteristic

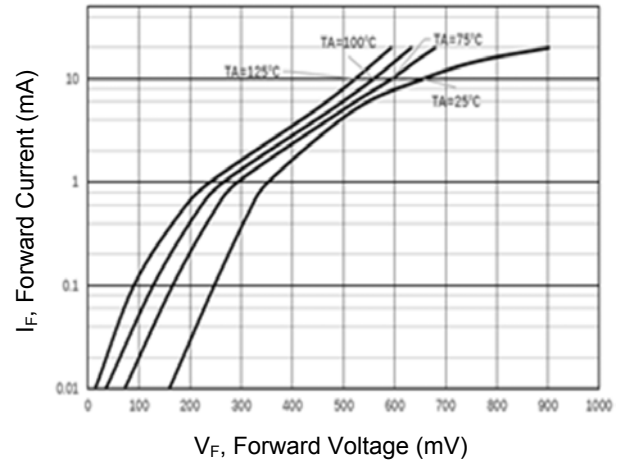


Figure 2. Typical Forward Characteristic

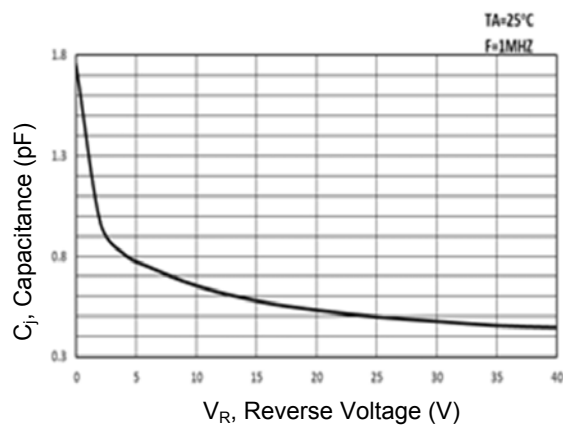


Figure 3. Capacitance vs. Reverse Voltage

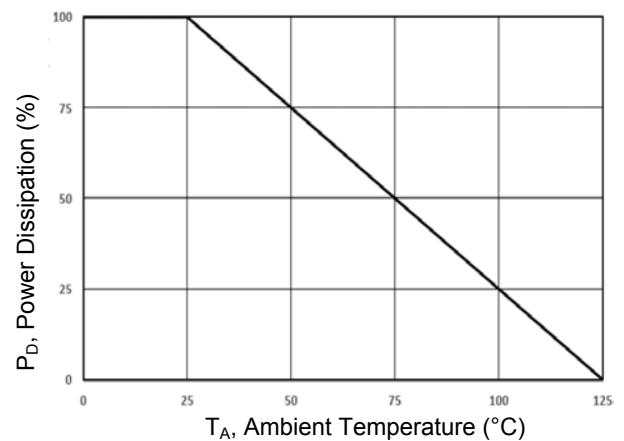
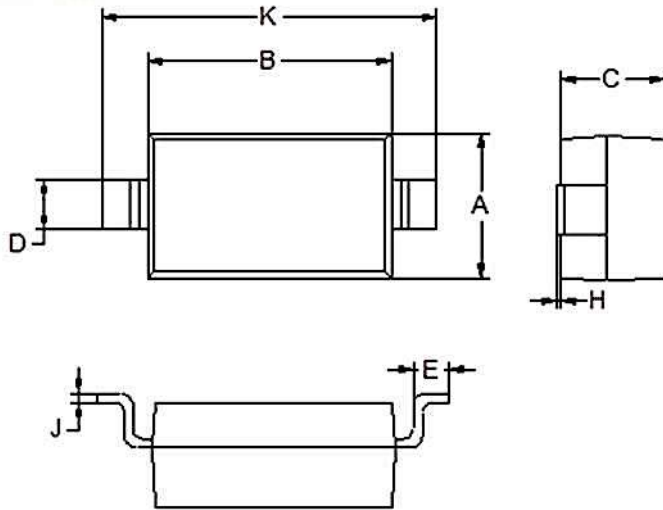


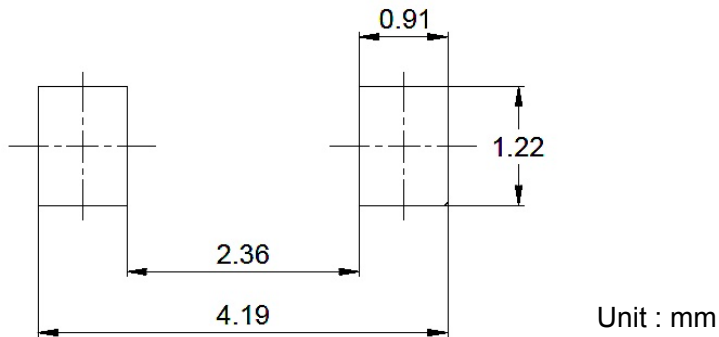
Figure 4. Derating Curve (P_D - T_A)

Package Outline Dimensions (SOD-123)



SOD-123 unit:mm		
Dim	Min	Max
A	1.45	1.75
B	2.55	2.85
C	1.00	1.30
D	0.50	0.60
E	0.25	0.45
H	0.02	0.10
J	0.05	0.15
K	3.55	3.85

Recommended Pad Layout



Order Information

Device	Package	Marking	Carrier	Quantity
GS1N5711W	SOD-123	SA	Tape & Reel	3,000pcs